Listing of Claims

1-108. (Cancelled)

109. (Previously Presented) A method, comprising:

identifying advertisements that are available for presentation with a document;

receiving, by at least one processor, initial advertisement performance information for the advertisements, the advertisement performance information for each advertisement specifying a measure of performance computed based on previous presentations of the advertisement;

identifying, by at least one processor, one or more concepts to which the document is relevant, concepts being identified based on content of the document;

receiving, by at least one processor and for each identified concept for the document, concept performance information representing an aggregate performance of advertisements that were presented with the document and corresponding to the concept;

modifying, by at least one processor, the initial advertisement performance information for an advertisement using the concept performance information for an identified concept corresponding to the advertisement; and

forwarding, based on the modified advertisement performance information, at least one of the advertisements.

110. (Previously Presented) The method of claim 109, wherein the advertisement performance information includes selection information and impression information for the advertisements.

111. (Previously Presented) The method of claim 109, wherein the document is a Web page identified by a URL.

112. (Previously Presented) The method of claim 109, wherein modifying the initial advertisement performance information for an advertisement comprises:

selecting an identified concept to which the advertisement corresponds; and

receiving concept performance information for the selected concept, the content performance information being computed based on performance of other advertisements that were presented with the document and correspond to the selected concept.

113. (Previously Presented) The method of claim 109, wherein receiving, for each identified concept for the document, the concept performance information comprises determining, for each identified concept for the document, concept performance information using document specific advertisement performance information for the identified advertisements corresponding to the identified concept.

114. (Previously Presented) The method of claim 113, further comprising:

determining, for each identified concept for the document, document specific advertisement performance information for a first advertisement and a second advertisement; and

determining, for each identified concept for the document, concept performance information using the document specific advertisement performance information for the first advertisement and the second advertisement corresponding to the identified concept.

115. (Previously Presented) The method of claim 109, wherein the concept performance information for a concept includes one or more of selection information and impression information for advertisements presented with the document and corresponding to the concept.

116. (Previously Presented) The method of claim 109, further comprising determining a confidence measure for the advertisement performance information, the confidence measure representing a confidence level for the advertisement performance information relative to other advertisement performance information.

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117.   (Previously Presented) The method of claim 116, wherein determining the confidence measure for the advertisement performance information comprises determining a confidence measure for the advertisement performance information based on one or more of the age of data included in the advertisement performance information and the amount of the data included in the advertisement performance information.

118.   (Previously Presented) The method of claim 109, wherein the advertisement for which the initial advertisement performance information is modified is included with the forwarded advertisements.

119.   (Previously Presented) The method of claim 109, wherein the advertisement for which the initial advertisement performance information is modified is different from the forwarded advertisements.

120.   (Previously Presented) The method of claim 109, wherein forwarding, based on the modified advertisement performance information, at least one of the advertisements comprises:

        comparing the modified advertisement performance information for an advertisement to a threshold;

        determining that the modified advertisement performance information exceeds the threshold; and

        forwarding the advertisement based on the modified advertisement performance information exceeding the threshold.

121.   (Previously Presented) The method of claim 109, wherein:

        identifying the one or more content concepts to which the document is relevant comprises identifying a first concept and a second concept to which the document is relevant; and

        the method further comprising determining that an advertisement is associated with the first concept and the second concept for the document.

122.   (Previously Presented) The method of claim 109, wherein:

receiving the initial advertisement performance information for the advertisements comprises receiving advertisement targeting information for the advertisements; and

receiving the concept performance information comprises receiving concept targeting performance information representing an aggregate performance of advertisements targeted according to the advertisement targeting information that were presented with the document based on the advertisement targeting information.

123.   (Previously Presented) The method of claim 109, further comprising:

identifying a first advertisement that does not have initial advertisement performance information;

determining that at least one of the identified concepts for the document correspond to the first advertisement;

receiving concept performance information for the at least one of the one identified concepts corresponding to the first advertisement; and

determining, based on the received concept information for the at least one of the identified concepts associated with the first advertisement, estimated advertisement performance information for the first advertisement.

124.   (Previously Presented) The method of claim 123, wherein determining the estimated advertisement performance information for the first advertisement comprises determining a weighted-sum of the content concept information for the at least one of the identified concepts corresponding to the first advertisement.

125.   (Previously Presented) An apparatus comprising one or more processors connected to a storage device, wherein the one or more processors are configured to:

identify advertisements that are available for presentation with a document;

receive initial advertisement performance information for the advertisements, the advertisement performance information for each advertisement specifying a measure of performance computed based on previous presentations of the advertisement;

identify one or more concepts to which the document is relevant, concepts being identified based on content of the document;

receive, for each identified concept for the document, concept performance information representing an aggregate performance of advertisements that were presented with the document and corresponding to the concept;

modify the initial advertisement performance information for an advertisement using the concept performance information for an identified concept corresponding to the advertisement; and

forward, based on the modified advertisement performance information, at least one of the advertisements.

126.   (Previously Presented) The apparatus of claim 125, wherein the advertisement performance information includes selection information and impression information for advertisements.

127.   (Previously Presented) The apparatus of claim 125, wherein the document is a Web page identified by a URL.

128.   (Previously Presented) The apparatus of claim 125, wherein the one or more processors are configured to modify the initial advertisement performance information for an advertisement by:

selecting an identified concept to which the advertisement corresponds; and

receiving concept performance information for the selected concept, the content performance information being computed based on performance of other advertisements that were presented with the document and correspond to the selected concept.

129.   (Previously Presented) The apparatus of claim 125, wherein the one or more processors are configured to receive, for each identified concept for the document, the concept performance information comprises determining, for each identified concept for the document,

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concept performance information using document specific advertisement performance information for the identified advertisements corresponding to the identified concept.

130. (Previously Presented) The apparatus of claim 129, wherein the one or more processors are further configured to:

determine, for each identified concept for the document, document specific advertisement performance information for a first advertisement and a second; and

determine, for each identified concept for the document, concept performance information using the document specific advertisement performance information for the first advertisement and the second advertisement corresponding to the identified concept.

131. (Previously Presented) The apparatus of claim 125, wherein the concept performance information for a concept includes one or more of selection information and impression information for advertisements presented with the document and corresponding to the concept.

132. (Previously Presented) The apparatus of claim 125, wherein the one or more processors are further configured to determine a confidence measure for the advertisement performance information, the confidence measure representing a confidence level for the advertisement performance information relative to other advertisement performance information.

133. (Previously Presented) The apparatus of claim 132, wherein the one or more processors are configured to determine the confidence measure for the advertisement performance information by determining a confidence measure for the advertisement performance information based on one or more of the age of data included in the advertisement performance information and the amount of the data included in the advertisement performance information.

134.   (Previously Presented) The apparatus of claim 125, wherein the advertisement for which the initial advertisement performance information is modified is included with the forwarded advertisements.

135.   (Previously Presented) The apparatus of claim 125, wherein the advertisement for which the initial advertisement performance information is modified is different from the forwarded advertisements.

136.   (Previously Presented) The apparatus of claim 125, wherein the one or more processors are configured to forward, based on the modified advertisement performance information, at least one of the advertisements by:

comparing the modified advertisement performance information for an advertisement to a threshold;

determining that the modified advertisement performance information exceeds the threshold; and

forwarding the advertisement based on the modified advertisement performance information exceeding the threshold.

137.   (Previously Presented) The apparatus of claim 125, wherein the one or more processors are configured to:

identify the one or more content concepts to which the document is relevant by identifying a first concept and a second concept to which the document is relevant; and

determine that an advertisement is associated with the first concept and the second concept for the document.

138.   (Previously Presented) The apparatus of claim 125, wherein the one or more processors are configured to:

receive the initial advertisement performance information for the advertisements by receiving advertisement targeting information for the advertisements; and

receive the concept performance information by receiving concept targeting performance information representing an aggregate performance of advertisements targeted according to the advertisement targeting information that were presented with the document based on the advertisement targeting information.

139.   (Previously Presented) The apparatus of claim 125, wherein the one or more processors are further configured to:

identify a first advertisement that does not have initial advertisement performance information;

determine that at least one of the identified concepts for the document correspond to the first advertisement;

receive concept performance information for the at least one of the one identified concepts corresponding to the first advertisement; and

determine, based on the received concept information for the at least one of the identified concepts associated with the first advertisement, estimated advertisement performance information for the first advertisement.

140.   (Previously Presented) The apparatus of claim 139, wherein the one or more processors are configured to determine the estimated advertisement performance information for the first advertisement by determining a weighted-sum of the content concept information for the at least one of the identified concepts corresponding to the first advertisement.

141.   (Previously Presented) A storage device storing a computer program comprising one or more code segments that, when executed, cause at least one processor to:

identify advertisements that are available for presentation with a document;

receive initial advertisement performance information for the advertisements, the advertisement performance information for each advertisement specifying a measure of performance computed based on previous presentations of the advertisement;

identify one or more concepts to which the document is relevant, concepts being identified based on content of the document;

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receive, for each identified concept for the document, concept performance information representing an aggregate performance of advertisements that were presented with the document and corresponding to the concept;

modify the initial advertisement performance information for an advertisement using the concept performance information for an identified concept corresponding to the advertisement; and

forward, based on the modified advertisement performance information, at least one of the advertisements.

142.   (Previously Presented) The storage device of claim 141, wherein the advertisement performance information includes selection information and impression information for advertisements.

143.   (Previously Presented) The storage device of claim 141, wherein the document is a Web page identified by a URL.

144.   (Previously Presented) The storage device of claim 141, wherein the one or more code segments that, when executed, cause the at least one processor to modify the initial advertisement performance information for an advertisement comprises one or more code segments that, when executed, cause the at least one processor to:

select identify an identified concept to which the advertisement corresponds; and

receive concept performance information for the selected concept, the content performance information being computed based on performance of other advertisements that were presented with the document and correspond to the selected concept.

145.   (Previously Presented) The storage device of claim 141, wherein the one or more code segments that, when executed, cause the at least one processor to receive, for each identified concept for the document, the concept performance information comprise one or more code segments that, when executed, cause the at least one processor to determine, for each identified concept for the document, concept performance information using document specific

advertisement performance information for the identified advertisements corresponding to the identified concept.

146.   (Previously Presented) The storage device of claim 145, wherein the one or more code segments that, when executed, cause the at least one processor to:

determine, for each identified concept for the document, document specific advertisement performance information for a first advertisement and a second advertisement; and

determine, for each identified concept for the document, concept performance information using the document specific advertisement performance information for the first advertisement and the second advertisement corresponding to the identified concept.

147.   (Previously Presented) The storage device of claim 141, wherein the concept performance information for a concept includes one or more of selection information and impression information for advertisements presented with the document and corresponding to the concept.

148.   (Previously Presented) The storage device of claim 141, wherein the one or more code segments further comprise one or more code segments that, when executed, cause the at least one processor to determine a confidence measure for the advertisement performance information, the confidence measure representing a confidence level for the advertisement performance information relative to other advertisement performance information.

149.   (Previously Presented) The storage device of claim 148, wherein the one or more code segments that, when executed, cause the at least one processor to determine the confidence measure for the advertisement performance information comprise one or more code segments that, when executed, cause the at least one processor to determine a confidence measure for the advertisement performance information based on one or more of the age of data included in the advertisement performance information and the amount of the data included in the advertisement performance information.

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150. (Previously Presented) The storage device of claim 141, wherein the advertisement for which the initial advertisement performance information is modified is included with the forwarded advertisements.

151. (Previously Presented) The storage device of claim 141, wherein the advertisement for which the initial advertisement performance information is modified is different from the forwarded advertisements.

152. (Previously Presented) The storage device of claim 141, wherein the one or more code segments that, when executed, cause the at least one processor to forward, based on the modified advertisement performance information, the at least one of the one or more advertisements comprise one or more code segments that, when executed, cause the at least one processor to:

compare the modified advertisement performance information for an advertisement to a threshold;

determine that the modified advertisement performance information exceeds the threshold; and

forward the advertisement based on the modified advertisement performance information exceeding the threshold.

153. (Previously Presented) The storage device of claim 141, wherein the one or more code segments that, when executed, cause the at least one processor to:

identify the one or more content concepts to which the document is relevant comprise one or more code segments that, when executed, cause the at least one processor to identify a first concept and a second concept to which the document is relevant; and

determine that an advertisement is associated with the first concept and the second concept for the document.

154. (Previously Presented) The storage device of claim 141, wherein the one or more code segments that, when executed, cause the at least one processor to:

receive the initial advertisement performance information for the advertisements
comprise one or more code segments that, when executed, cause the at least one processor to
receive advertisement targeting information for the advertisements; and

receive the concept performance information comprise one or more code segments that,
when executed, cause the at least one processor to receive concept targeting performance
information representing an aggregate performance of advertisements targeted according to the
advertisement targeting information that were presented with the document based on the
advertisement targeting information.

155.   (Previously Presented) The storage device of claim 141, wherein the one or more
code segments further comprise one or more code segments that, when executed, cause the at
least one processor to:

identify a first advertisement that does not have initial advertisement performance
information;

determine that at least one of identified concepts for the document correspond to the first
advertisement;

receive concept performance information for the at least one of the one identified
concepts corresponding to the first advertisement; and

determine, based on the received concept information for the at least one of the identified
concepts associated with the first advertisement, estimated advertisement performance
information for the first advertisement.

156.   (Previously Presented) The storage device of claim 155, wherein the one or more
code segments that, when executed, cause the at least one processor to determine the estimated
advertisement performance information for the first advertisement comprise one or more code
segments that, when executed, cause the at least one processor to determine a weighted-sum of
the content concept information for the at least one of the concepts corresponding to the first
advertisement.